IN THE CLAIMS

Claims 13 - 31 are pending in this application as follows:

1-12. (Cancelled)

13. (Previously Presented) A magnetic recording system for perpendicular recording hard disk drives, comprising:

a magnetic head for recording and reproducing information, and

a perpendicular magnetic recording medium having a perpendicular magnetic recording layer, and

a soft magnetic underlayer,

said perpendicular magnetic recording layer having a burst area,

said burst area having a first area with a burst signal recorded therein for positioning said magnetic head, and a second area with a dummy signal recorded therein,

a bit length of said dummy signal being less than a bit length of the burst signal.

14. (Previously Presented) A magnetic recording system according to claim 13, wherein the perpendicular magnetic recording medium has a response to DC magnetization.

15. (Previously Presented) A magnetic recording system for perpendicular recording hard disk drives, comprising:

a magnetic head for recording and reproducing information; and

a perpendicular magnetic recording medium having a perpendicular magnetic recording layer, and

a soft magnetic underlayer,

said perpendicular magnetic recording layer having a burst area,

said burst area having a first area with a burst signal recorded therein for positioning said magnetic head, and a second area with a dummy signal recorded therein, wherein

said burst area is formed with a bit length of said dummy signal less than a bit length of the burst signal, such that the burst signal is extractable from said burst area.

16. (Previously Presented) A magnetic recording system according to claim 15, further comprising: a controller which extracts the burst signal element from said burst area.

17. (Previously Presented) A magnetic recording system according to claim 15, wherein the perpendicular magnetic recording medium has a response to DC magnetization.

18. (Previously Presented) A magnetic recording system according to claim 13, wherein said perpendicular magnetic recording layer further has a user data area with a user data signal recorded therein, and a bit length of the burst signal is less than or equal to a bit length of the user data signal.

19. (Previously Presented) A magnetic recording system according to claim 14, wherein said perpendicular magnetic recording layer further has a user data area with a user data signal recorded therein, and a bit length of the burst signal is less than or equal to a bit length of the user data signal.

20. (Previously Presented) A magnetic recording system according to claim 18, wherein a maximum bit length of the burst signal is less than or equal to a maximum bit length of the user data signal.

21. (Previously Presented) A magnetic recording system according to claim 19, wherein a maximum bit length of the burst signal is less than or equal to a maximum bit length of the user data signal.

22. (Previously Presented) A magnetic recording system for perpendicular recording hard disk drives, comprising:

a magnetic head for recording and reproducing information, and

a perpendicular magnetic recording medium having a perpendicular magnetic

recording layer, and

a soft magnetic underlayer,

said perpendicular magnetic recording layer having a burst area,

said burst area having a first area with a burst signal recorded therein for positioning said magnetic head, and a second area with a dummy signal recorded therein, wherein

a frequency of said dummy signal is higher than a frequency of the burst signal.

23. (Previously Presented) A magnetic recording system according to claim 22, wherein the perpendicular magnetic recording medium has a response to DC magnetization.

24. (Previously Presented) A magnetic recording system for perpendicular recording hard disk drives, comprising:

a magnetic head for recording and reproducing information, and

a perpendicular magnetic recording medium having a perpendicular magnetic recording layer, and

a soft magnetic underlayer,

said perpendicular magnetic recording layer having a burst area,

said burst area having a first area with a burst signal recorded therein for positioning said magnetic head, and a second area with a dummy signal recorded therein, wherein

said burst area is formed with a frequency of said dummy signal higher than a frequency of the burst signal, such that the burst signal is extractable from said burst area.

25. (Previously Presented) A magnetic recording system according to claim 24, wherein the perpendicular magnetic recording medium has a response to DC magnetization.

26. (Previously Presented) A magnetic recording system according to claim 24, further comprising: a controller which extracts the burst signal element from said burst area.

27. (Previously Presented) A magnetic recording system for perpendicular recording hard disk drives, comprising:

a magnetic head for recording and reproducing information, and

a perpendicular magnetic recording medium having a perpendicular magnetic recording layer, and

a soft magnetic underlayer,

said perpendicular magnetic recording layer having a burst area,

said burst area having a first area with a burst signal recorded therein for positioning said magnetic head, and a second area with a dummy signal recorded therein, wherein

a recording density of said dummy signal is higher than a recording density of the burst signal.

28. (Previously Presented) A magnetic recording system according to claim 27, wherein the perpendicular magnetic recording medium has a response to DC magnetization.

29. (Previously Presented) A magnetic recording system for perpendicular recording hard disk drives, comprising:

a magnetic head for recording and reproducing information; and

a perpendicular magnetic recording medium having a perpendicular magnetic recording layer, and

a soft magnetic underlayer,

said perpendicular magnetic recording layer having a burst area,

said burst area having a first area with a burst signal recorded therein for positioning said magnetic head, and a second area with a dummy signal recorded therein, wherein

said burst area is formed with a recording density of said dummy signal less than a recording density of the burst signal, such that the burst signal is extractable from said burst area.

30. (Previously Presented) A magnetic recording system according to claim 29, wherein the perpendicular magnetic recording medium has a response to DC magnetization.

31. (Previously Presented) A magnetic recording system according to claim 29, further comprising: a controller which extracts the burst signal element from said burst area.